Report on the
Return on Asset Value by Trust and Land
Office for State Trust Lands

Fiscal Year 2003
December 2003

Prepared by

Trust land Management Division
Montana Department of Natural Resources and Conservation

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RETURN ON ASSETS – TRUST LANDS DIVISION MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

I. Introduction. This second annual Return on Assets Report for the Trust Lands Division allows for comparison with last year's figures as well as reporting on this years return on assets. The report contains the Return on Assets for Classified Forest Lands report required by the Montana State Legislature. The 5.1 million acres of Trust land constitutes the second largest real estate holding in Montana. The Information published in this report should be useful in understanding the financial performance of the trust land bureaus.

The report is divided into two sections. The first section examines all revenue sources on the same basis and time frame using a non-legislatively prescribed method of analysis. The second will analyze the return to Classified Forest Lands using the method prescribed by 77-1-223, MCA through 77-1-225, MCA.

Date Changes. The Trust Lands Management Division is in the final stages of implementing a new data management system. The new data system has improved the accuracy of much of the information available for this report, although where full implementation has not been completed; the accuracy of the data has not improved. One of the areas of greatest improvement has been in the identification of trust acres by trust and Bureau management. Because of this increased accuracy in the data, some report data estimates have been substantially revised. The categories of "Agriculture and Grazing" and "Special Uses" were substantially revised because of the more accurate data. Because of the size of the revisions, the previous years estimates will be revised to reflect the changes in acres and acreage distribution. Similar to last year, the data is most accurate at the total trust and land office levels. The trust by land office data estimates are improved and it will continue to be refined as better quality data that requires fewer estimates becomes available.

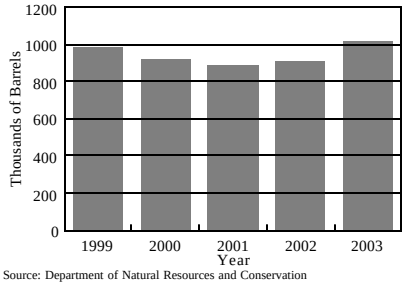
Note: Tables do not always balance, particularly when rounded numbers are being used. Estimating processes also result in some tables not balancing.

Methodology. The methodology used for this report is identical to that used in the last report unless otherwise identified. Changes to methodology are generally specific to a particular estimate and not of a broad nature.

II Products and Prices. This section discusses the products and prices received by the different bureaus during the fiscal year and where relevant it discusses broader market issues and prices to provide an explanation of issues the particular bureau is facing.

Because lease rates are dependent on commodity prices and not total revenue from commodity production, production is less of a significant short term issue for grazing lands and, to a lesser extent, for the Special Use Bureau lands because their current programs are such that all or nearly all of their lands are leased each year and the potential for expansion is limited. Obviously in the long term, it is in the Bureaus' best interest to manage in such a way that the lands retain their productivity and retain future leasing potential. For the Special Uses Bureau, the importance of productivity is likely to change with the implementation of the "land-banking program" and the "more opportunistic" approach to transforming high value lands into alternative more revenue intensive alternative uses allowed by this new program. Unlike grazing lands, agricultural lands are dependent on the productivity of the land, since the revenue received from these lands is dependent on the amount of revenue earned from the crops produced from these lands.

Figure 1a
Montana Department of Natural Resources and Conservation
Oil Production on State Trust Lands 1999 - 2003



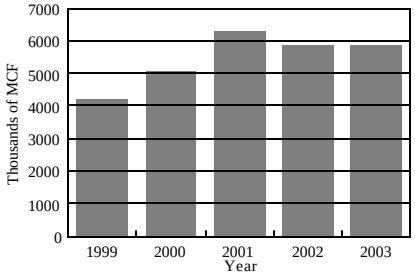
Source: Department of Natural Resources and Conservation

The Forest Management and the Minerals Management bureaus, on the other hand depend highly on the level of production for their revenue. Lease revenue for minerals and stumpage revenue for forest management all are directly related to product prices.

Figure 1a shows the production of oil from trust lands for the last five years. Oil from State trust lands is produced by private producers who base their production levels on market demand, production costs, the quality of the oil being produced and long term contractual obligations. The responsiveness of production to price will vary depending upon these factors.

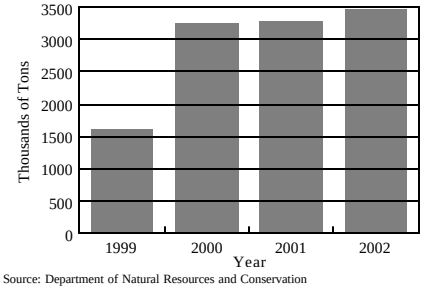
Figure 1b shows the production of natural gas from trust lands for the last five years. The general trend in production has been increasing although 2001 was the highest natural gas production year of the period. The continued increase has, in part been stimulated by the general increase in prices.

Figure 1b
Montana Department of Natural Resources and Conservation
Natural Gas Production on State Trust Lands 1999 - 2003



Source: Montana Department of Natural Resources and Conservation

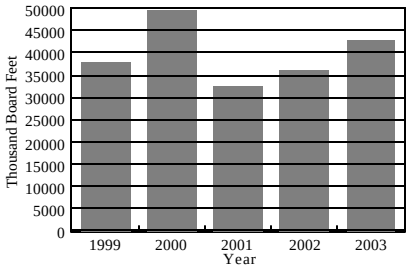
Figure 1c
Montana Department of Natural Resource and Conservation
Coal Production on State Trust Lands 1999 - 2003



Source: Department of Natural Resources and Conservation

Coal production also has increased throughout the period, although there are some issues relating to coal production in Montana that may have longer term impacts. Some of the coal produced from Montana trust lands contains comparatively high levels of sodium. Consequently, the coal must be treated to make it meet environmental standards. This makes the coal more expensive to use and reduces its market value. Coal production fluctuates significantly from year to year as mining activity moves onto or off state land during the normal course of mining operations. New production from state leases in the Spring Creek mine also began in the first half of calendar 2002.

Figure 2
Montana Deparment of Natural Resources and Conservation
Timber Harvest from Bid Sales



Source: Montana Department of Natural Resources and Conservation

Figure 3 displays the timber harvest from bid sales for the period 1999 to 2003. Timber harvests fluctuate widely year-to-year depending on several factors including current price, expected future price, and the availability of logs from other sources. The harvest for the last three years has been heavily influenced by the large number of salvage harvests that are required by law to extract as much economic value as possible for the trusts from the burned timber. In order to retain the most value, it is necessary to harvest these trees as soon after the fires as is possible to avoid defects that develop as the burned standing trees age.

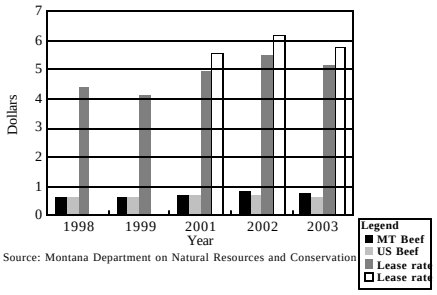
Virtually all of the products produced from trust lands are inputs into the production of another good or asset. Oil and gas are used to power machinery, timber is made into lumber that is used to build houses, etc. This means that the demand for nearly all of demand for trust land products is the result of activities that occur in other markets. It is the price and demand for these market goods that plays a major roll in determining the prices received for trust land outputs. A second major factor influencing the price is the competition for our goods from other producers of the same or similar goods. In nearly all of the markets in which trust lands goods are sold, the bureaus outputs constitute a small fraction of the total production of the goods supplied to the market. This means the bureaus can do little to influence the prices they receive, i.e. they are "price takers." In order to give some indication of the effect of these influences, the price graphs will include prices of some other factors which are likely to be influential on the prices received by the different bureaus for their products.

In the case of agriculture, the prices received for leases are directly tied to the price of beef. Figure 3 shows the Montana and US fed beef prices compared with the lease rates received by the state trust lands. Since the lease rates are adjusted based on Montana beef prices, the two move together. US beef prices follow

much the same pattern except the relationship between US and Montana beef prices changes from year to year. Montana beef prices have generally been above average US beef prices in recent years.

Finding relevant price indexes for Special Use lands is more difficult. Because the most revenue is generated from real estate leasing and licenses, the prices of housing and commercial properties is used. While lease rates are not directly tied to the housing market, they are tied to the appraised value of the property which is dependent on the overall market value for real property.

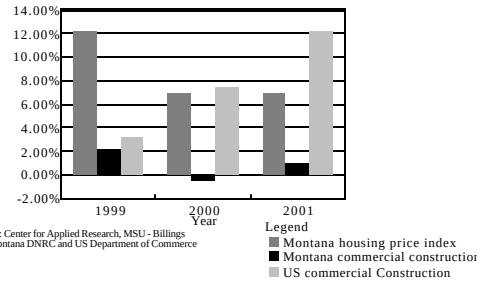
Figure 3
Montana Department of Natural Resources and Conservation
A Comparison of Beef Prices and Trust Land Lease Rates



Source: Montana Department on Natural Resources and Conservation

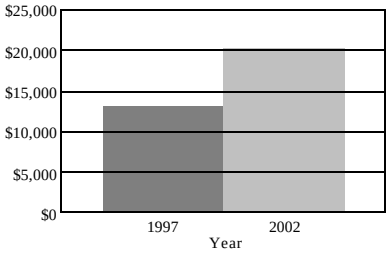
Figure 4a exhibits three real estate related indexes. The first, a Montana housing price index developed from average housing price data supplied by the Center for Applied Research, MSU-Billings, compares the percent increase in residential housing prices for the period 1999-2001. The data indicates that housing price increase rates in 1999 were nearly double the average housing price increases experience in 2000 and 2001. The second index is from the US Department of Commerce and gives a measure of the cost of new commercial construction in Montana. While it does not directly look and commercial prices it does give an indication that new commercial construction prices have not increased substantially in the three year period and that over all the market for commercial real estate is generally less volatile than the market for residential real estate. The last index is the cost of commercial construction for the US in total. These costs, unlike the costs in Montana, are increasing substantially each year.

Figure 4a
Montana Deparment of Natural Resources and Conservation
Housing Cost Index & Commercial Construction Cost Indexes



Source: Center for Applied Research, MSU - Billings and Montana DNRC and US Department of Commerce

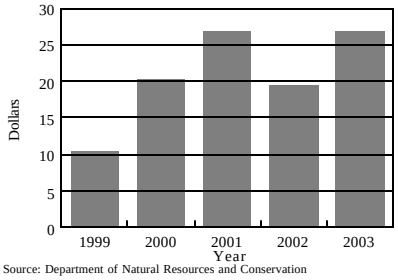
Figure 4b
Montana Department of Natural Resources and Conservation
Average Appraised Value Per Acre



Source: Montana Department of Natural Resources and Conservation

Figure 4b displays the average price per acre for Special use leases in 1997 ($13,089) and in 2002 ($20,322). This increase represents an annual increase in valuation of 9.2% or 55.3% for the entire 5-year period.

Figure 5a
Montana Department of Natural Resources and Conservation
Prices for Oil Produced on State Trust Lands 1999 - 2003

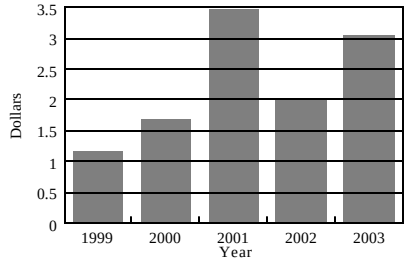


Source: Department of Natural Resources and Conservation

Figure 5a depicts the price received for oil produced on state trust lands. The price trend has generally been up despite the comparatively low price received in 2002. With current world demand and the situation that currently exists in the Middle East it is likely that the prices for oil will remain at or near their current level.

Figure 5b shows the Natural gas prices for the period 1999 to 2003. Prices for natural gas have been consistently increasing during this period with very high prices in 2002. The high gas prices of 2002 were the result of several factors. These factors include weather, oil prices, and worldwide demand. Both worldwide and national reserves for natural gas from all sources are quite large, however, low prices for alternative energy sources, coal and oil, have, until recently, helped to keep prices down and delay development of new producing areas

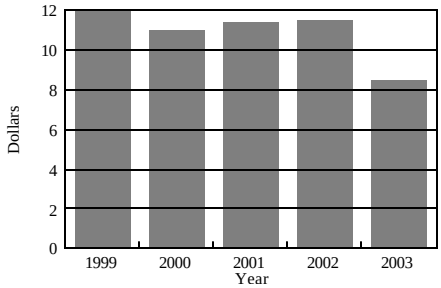
Figure 5b
Montana Department of Natural Resources and Conservation
Prices for Natural Gas Produced on State Trust Lands 1999 - 2003



Source: Montana Department of Natural Resources and Conservation

Figure 5c illustrates the prices received for coal produced from state lands. The graph indicates that the price received for coal produced on state trust for the period 1999 to 2003 has been decreasing. This has not been the general trend with coal prices. The main reason for decreasing prices for trust land coal is strong, low cost competition from Wyoming, and the high sodium content in some of the coal which makes it less valuable on the market in general and makes it difficult to arrange long-term contracts. Long-term forecasts for coal prices generally predict stable or slightly declining prices for the future.

Figure 5c
Montana Department of Natural Resource and Conservatio
Prices for Coal Produced on State Trust Lands 1999 - 2003

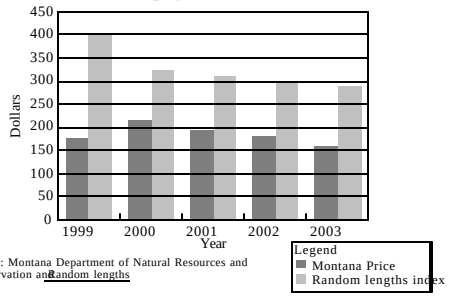


Source: Department of Natural Resources and Conservation

Figure 6 describes the average stumpage price the state has received for timber harvested on state trust lands for the period 1999-2003 together with the random lengths composite price index. The random lengths index is a wholesale composite index

price that reflects both national and regional timber prices. Both the state prices and the random lengths prices have been declining for nearly the entire period.

Figure 6
Montana Deparment of Natural Resources and Conservation
Timber Stumpage Prices on Trust Lands



Source: Montana Department of Natural Resources and Conservation and Random lengths

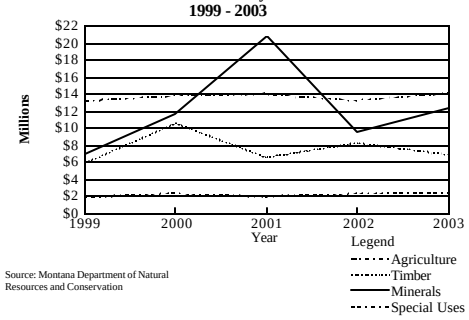
There are several reasons for the declining state stumpage price; the most important of which is the generally declining prices for timber as shown in the Random Lengths index. In addition, the large number of fire salvage sales has contributed to the lower average price. There is some expectation that the decline may lessen or "flatten out" with the resurgence of the Japanese economy and housing market. This impact has been seen in recent prices, although it is not certain that it will be maintained.

III. Revenue, Expense and Asset appreciation

While the total return includes all values, it may not identify the best income flow. For example, appreciation in land values cannot be used to fund school expenditures, although it is considered part of the total return on an asset. Passive and non-market values affect Trust Land management activity levels, particularly regarding classified timberlands, but other land classifications as well and do not add to the income received for the trust land beneficiaries.

A. Revenue

Figure 7
Trust Gross Revenue by Source
1999 - 2003



Source: Montana Department of Natural Resources and Conservation

Revenue-generating activities on Trust Lands includes timber sales, mineral sales and leases, agricultural sales and leases, and "special use" sales and leases. Each of these is reported in the Department of Natural Resources Annual Report. Figure 1 shows the contributions from each source for the last five years. On average, agriculture brings in the largest amount of revenue, followed in order by minerals, timber and special uses. Gross revenue from minerals increased substantially in 2003. Revenue for special uses and agriculture and grazing were up marginally and forestry revenue declined. The larger changes in revenue for forestry and minerals reflects the fact that short-term changes in market conditions have a stronger annual impact on revenue than the leases and licenses associated with special uses and agriculture, which are based on longer-term market conditions with a relatively fixed amount of resource.

Table 1 presents this same information in tabular form. These numbers are presented in the Department of Natural Resources and Conservation's Annual Report for each of the fiscal years[1] except that land sales, trust interest and "other revenues" are not included. Land sales are shown separately in the table, but are excluded from the return on assets calculation because they represent an exchange of assets, money for land. These earnings are deposited directly into the Trust permanent fund. Interest income and other revenues are excluded because they do not represent current earnings from Trust natural resources.

Table 1
Montana Department of Natural Resources and Conservation
Trust Gross Revenue by Source

Source	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Ag. and Grazing	$13,252,307	$13,826,053	$14,018,730	$13,279,949	$14,116,247
Forest Mgmt.	5,905,196	10,591,657	6,596,578	8,282,481	6,915,128
Minerals Mgmt.	6,926,405	11,643,027	20,777,365	9,501,254	12,282,648
Special Uses	1,620,664	2,087,185	2,008,779	2,302,658	2,367,469
Subtotal	$27,704,572	$38,147,922	$43,401,452	$33,366,342	$35,681,492
Land Sales	254,917	261,884	0	15,954	19,744
Total	$27,704,572	$38,147,922	$43,401,452	$33,366,342	$35,681,492

Source: Montana DNRC

Table 1 represents gross earnings by source; however, the return on assets should represent a net figure, i.e., earnings after expenses are deducted. Only expenses that reduce trust funds are included. Expenses paid from other sources will not diminish the trust funds available and are not counted against revenue. Table 2 shows the net trust fund revenues available for 1999 to 2003.

Table 2
Trust Net Revenue by Source*

Source	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Ag. and Grazing	$12,567,944	$12,972,307	$13,127,720	$12,097,023	$13,072,974
Forest Mgmt.	2,894,527	7,486,558	3,531,233	4,996,012	3,138,699
Minerals Mgmt.	6,340,023	10,899,180	20,147,435	8,745,150	11,310,736
Special Uses	798,840	1,157,842	982,423	1,097,211	1,206,388
Total	$22,601,334	$32,515,887	$37,788,811	$26,935,396	$28,728,797

*Table includes reductions for production costs but does not include reductions for fund reallocations e.g. Permanent Fund.

Source: Montana DNRC

Figure 2 displays the distribution of revenue by each trust for FY 2002 and FY 2003. The Common School trust receives over four times the revenue from trust land as all of the other trusts combined. In FY 2003 the share going to

[1] Fiscal year will always means "state fiscal year" i.e. July through June and not "federal fiscal year."

Common Schools declined slightly while nearly all of the other trust had small increases.

Estimated gross revenues by Land Office and Trust are shown in Table 3.

Table 3
Department of Natural Resources and Conservation
Gross Trust Revenues by Land Office and Trust
FY 2003 (Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	$44	$0	$0	$314	$9	$419	$785
ACI	98	2	82	78	11	351	621
CS	4,901	6,444	10,098	2,511	5,273	1,342	30,569
D&DA	68	0	15	189	0	4	276
PB	286	6	55	758	1	355	1,461
SM	94	2	61	901	0	17	1,076
SNS	91	2	68	185	0	44	391
SRS	114	1	28	0	8	279	430
Univ	18	13	41	0	1	0	73
Total	$5,713	$6,470	$10,448	$4,936	$5,303	$2,813	$35,681

B. Expenses

The Trust Lands Division is allowed to utilize a portion of the trust receipts to cover part of the costs of managing the Trust Lands. These funds are a reduction to funds available for Trust Fund distribution. Table 4 shows these costs prorated on the basis of acres and gross revenue to land offices and trusts.

Table 4
Montana Department of Natural Resources and Conservation
Trust Management Expenses by Land Office and Trust
FY 2003 (Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	$13	$0	$0	$171	$4	$225	$413
ACI	14	0	7	42	1	171	235
CS	1,191	358	835	1,329	343	651	4,707
D&DA	13	0	1	102	0	2	118
PB	43	0	4	415	0	190	654
SM	9	0	5	478	0	9	501
SNS	15	0	7	100	0	23	145
SRS	19	0	2	0	1	149	171
Univ	4	1	3	0	0	0	8
Total	$1,321	$359	$864	$2,637	$350	$1,421	$6,953

C. Net Revenue

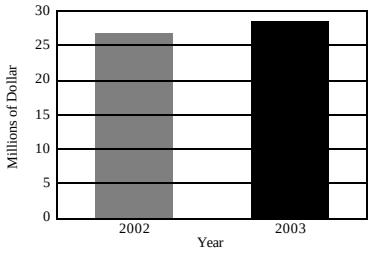
The amounts shown in Table 5 reflect the difference between the revenues collected and the expenses used to administer the program. These are not the amounts distributed to the schools, but an estimate of net earnings by trust. Earnings are redistributed based on different conditions associated with each grant.

Table 5
Montana Department of Natural Resources and Conservation
Net Revenue by Land Office and Trust
FY 2003 (Thousands of Dollars)

	Land Office						
Grant	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	$31	$0	$0	$143	$5	$194	$372
ACI	84	2	75	36	9	180	386
CS	3,710	6,086	9,263	1,182	4,930	691	25,861
DB	55	0	14	87	0	2	157
PB	243	6	50	343	1	165	808
SM	84	2	56	423	0	8	574
SNS	77	2	62	85	0	20	246
SRS	95	1	26	0	7	130	259
UM	14	12	38	0	1	0	65
Total	$4,392	$6,111	$9,583	$2,299	$4,953	$1,391	$28,729

Figure 3 displays the net revenue for FY 2002 and FY 2003. Revenue was up from $26,935,000 in FY 2002 to $28,729,000 in FY 2003. This increase will later reflect on the rate of return on assets in total.

Figure 8
Montana Department of Natural Resources and Conservation
Net Revenue for FY 2002 and FY 2003



Source: Montana Department of Natural Resources and Conservation

D. Asset Value and Appreciation

Total asset value represents the sum of all asset values from each of the revenue earning activities associated with trust lands. The detail of these estimates is found in the appendix. The results of the aggregation are found in the following tables.

Table 6 Montana Department of Natural Resources and Conservation Surface Acres by Land Office and Trust FY 2003 (Thousands of Acres)							
	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	9	0	0	12	0	10	31
ACI	38	0	15	3	4	3	63
CS	891	962	1,999	225	381	174	4,633
DB	23	0	4	9	0	1	36
PB	100	2	14	41	0	31	187
SM	26	0	19	11	0	3	59
SNS	31	1	18	10	0	4	63
SRS	47	1	11	1	3	5	68
UM	4	3	9	0	0	2	19
Total	1,168	969	2,089	314	389	233	5,162

Table 6 shows the total surface acreage by land office and trust. This information was used to prorate assets when they could not be directly allocated from revenue or other data. Total "reported" acreage increased by nearly 40,000 acres as a result of improved information from the new system

Table 7 shows acreage by land office and revenue-generating activity. The largest share of trust lands, both surface and subsurface (mineral), is in the Northeastern Land Office.

Table 7 Montana Department of Natural Resources and Conservation Acres by Land Office and Bureau FY 2003 (Thousands of Acres)							
	Land Office						
Bureau	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
Forest	32	0	1	297	0	151	481
Special Uses	15	0	2	2	2	1	22
Ag. & Grazing	1,121	968	2,087	15	387	82	4,660
Minerals	1,559	1,015	2,580	354	445	261	6,214

The asset value for the lands in each region by trust is shown in Table 8. This asset value is based on all sources and adjusted for possible use conflicts. The asset values for minerals have been added to the surface asset values, since there is little use conflict. Some mineral values occur where there is no

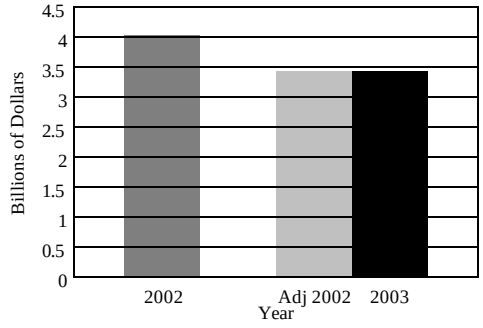
surface ownership (4% - 6% on average). Mineral values are combined into the surface values in all tables.

Table 8
Montana Department of Natural Resources and Conservation
Asset Value by Land Office and Trust
FY 2003(Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	$6,641	$0	$30	$9,280	$0	$4,952	$20,903
ACI	20,353	257	9,635	2,485	1,799	1,326	35,855
CS	574,904	597,999	1,541,963	163,980	214,561	63,587	3,156,994
D&DA	12,507	0	3,058	6,574	0	254	22,394
PB	57,262	758	7,760	29,087	0	9,457	104,323
SM	18,862	442	11,531	8,794	0	883	40,511
SNS	15,256	350	11,401	6,997	0	1,312	35,316
SRS	17,429	276	6,083	1,197	1,508	1,897	28,390
Univ	2,441	2,488	6,030	118	242	200	11,519
Total	$725,656	$602,570	$1,597,490	$228,512	$218,110	$83,868	$3,456,206

In the case of minerals, a capitalized value or a discounted reserve value is used since the mineral estate is largely subsurface and has few other marketable values. Special use lands are largely valued through appraisal processes that consider not only the specific use associated with the lease but other market valuations. Agricultural lands valuations are based on the "2000 Agricultural Lands Appraisal" done by the Montana Department on Revenue for the purpose of assessing property tax on agricultural properties. The method used is to capitalize the agricultural values of the land. Finally, the timber appreciation is based on the method identified in 77-1-225 MCA, a capitalization scheme. Appreciation is distributed to each land office and trust based on a weighted average of the acreage in each "source."

Figure 9
Montana Department of Natural Resources and Conservation
Assets FY 2002 and 2003

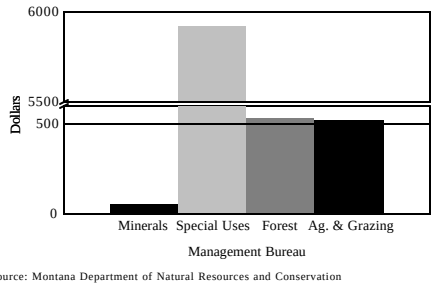


Source: Department of Natural Resources and Conservation

This year's asset total value is lower than last years because of redistribution of acres, primarily between grazing lands and farming lands. Figure 4 compares FY 2002 asset estimates to FY 2003 together with an adjusted 2002 figure. The adjusted figure is the asset value that

would have been used in 2002 had the acreage distributions been the same for both years. Note that the asset value and the adjusted asset values are nearly identical for both years.

Figure 10
Montana Department of Natural Resources and Conservation
Average Asset Value per Acre by Management Bureau



Source: Montana Department of Natural Resources and Conservation

Figure 10 displays the average asset value per acre by "Management Bureau." The comparatively large asset value per acre for special uses ($5,926) is the result of the substantial proportion of the Special Use acreage contained in the high value per acre cabin site program. The low value for minerals ($50) is because of the large number of acres that have not been identified as containing commercial mineral values. Forestry and Ag & Grazing have, on average, very similar per acre values of $533 and $528, respectively.

Total net revenue is from all sources; timber, minerals, special uses and agriculture. Revenue is allocated by ownership and Land Office with the revenue from minerals allocated to the surface ownership

The total return shown in Table 9 includes net revenue and an asset appreciation value when appropriate. In many cases the appreciation of the asset exceeds the direct earnings of the asset. Both values are summed in the table.

Table 9
Montana Department of Natural Resource and Conservation
Total Return by Land Office and Trust
FY 2003(Thousands of Dollars)

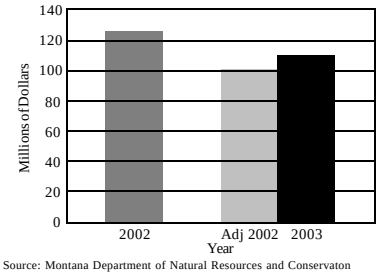
	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	$177	$0	$8	$261	$158	$199	$802
ACI	498	7	322	100	311	24	1,263
CS	14,732	16,987	46,697	5,690	11,565	5,417	101,089
D&DA	311	0	90	166	71	2	640
PB	1,375	21	223	733	305	277	2,934
SM	472	12	375	401	191	20	1,471
SNS	402	22	320	182	46	34	1,007
SRS	438	7	194	17	79	118	854
Univ	68	67	209	16	11	5	377
Total	$18,475	$17,124	$48,438	$7,566	$12,738	$6,096	$110,436

This year's return on assets reflects the changes in land distribution and is lower than the estimate for last year because the appreciation on lower valued land leads to lower amounts.

Figure 6 portrays the return on assets for FY 2002 and FY 2003 together with an adjusted FY 2002 return on asset amount. As before the adjusted amount reflects the amount that would have been estimated if last years numbers were used with the current acreage numbers. The return on assets is lower primarily because of the reduced appreciation associated with lower valued agricultural lands

Table 10 shows the rate of return on assets for all Trust Lands. The total return statewide is 3.2%. Generally areas with the highest mineral values have the highest rates of return. Unusually high rates of return are often indicative of a one-time occurrence or windfall. The overall distribution of assets tends to be more accurate than the detail distribution which is highly dependent on land ownership patterns.

Figure 11
Montana Department of Natural Resources and Conservat
Return on Assets 2002 and 2003



Source: Montana Department of Natural Resources and Conservaton

Table 10
Montana Department of Natural Resources and Conservation
Rate of Return on Assets by Land Office and Trust
FY 2003

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	2.7%	0.0%	26.2%	2.8%	0.0%	4.0%	3.8%
ACI	2.4%	2.8%	3.3%	4.0%	17.3%	1.8%	3.5%
CS	2.6%	2.8%	3.0%	3.5%	5.4%	8.5%	3.2%
D&DA	2.5%	0.0%	2.9%	2.5%	0.0%	0.8%	2.9%
PB	2.4%	2.7%	2.9%	2.5%	0.0%	2.9%	2.8%
SM	2.5%	2.7%	3.3%	4.6%	0.0%	2.3%	3.6%
SNS	2.6%	6.3%	2.8%	2.6%	0.0%	2.6%	2.9%
SRS	2.5%	2.7%	3.2%	1.4%	5.3%	6.2%	3.0%
Univ	2.8%	2.7%	3.5%	13.7%	4.5%	2.4%	3.3%
Total	2.5%	2.8%	3.0%	3.3%	5.8%	7.3%	3.2%

This year's rate of return on assets is slightly higher than last years primarily due to the effects of increased earnings. The larger earnings increased both

the net revenue contribution to total assets but also increase the estimated appreciation associated with those activities yielding higher returns.

IV. SUMMARY

Table 11 gives the returns based on revenue and total asset values by revenue source. A large part of the return is from appreciation and not earned revenue. The rate of return on revenue is 0.83% of the asset value although it is slightly higher than last years rate of 0.66%. The rate of return on assets is 3.2%, reflecting the additional values from land appreciation. This year's rate of return is nearly 4% higher than last year's return of 3.08%.

Table 11
Montana Department of Natural Resources and Conservation
Trust Returns by Net Revenue and Total Return[2]
FY 2003 (Thousands of Dollars)

Source	Revenue	% of Assets	Appreciation	% of Assets	Total Return	% of Assets
Ag & grazing	$13,073	0.47%	$81,778*	2.49%	$94,851*	3.1%
Forests	$3,139	1.23%	$3,639*	1.24%	6,778*	2.6%
Minerals	$11,311	3.65%	$23,188	8.98%	$34,499	11.1%
Special Uses	$1,206	0.92%	$3,260*	0.85%	$4,466*	3.3%
Total	$28,729	0.83%	$81,707**	3.14%	$110,436**	3.2%

*Includes minerals and/or other bureau returns
** In order to avoid double counting, the total includes Ag & Grazing, Forests, and Special Uses values only.

[2] Trust resources are not managed in the same manner as privately held resources. In addition to providing revenue, other social and political issues are considered in most economic decisions associated with managing trust assets. Consequently, evaluating trust performance solely on the basis of the rate of return without considering all of the goals and objectives of trust asset management could lead to inaccurate conclusions about the "financial" management of trust assets.

Return on Asset Value by trust and Land Office for Classified Forest Lands
(77-1-223 - 77-1-225 MCA)
FY 2003

This section fulfills the requirements of 77-1-223 – 225 MCA, which stipulates that each year the Board of Land Commissioners will provide an annual report based on a specific methodology identifying the average return on revenue to trust beneficiaries from Classified Forest Lands as identified in 77-4-401 MCA as class 2 trust lands[3]. The report must include for each beneficiary:

1. The total acreage of forest land held in trust;
2. A summary of the asset value for the forested lands held in trust;
3. A calculation of the average return from revenue on the asset value for the forested tracts held in trust; and
4. A listing by each Department land office of the total forested acreage administered for the trust beneficiary and a calculation for the average return from revenue on asset value for lands designated to the trust beneficiary.

Classified Forest Lands

The amount and distribution of Classified Forest Lands used for this section of the report is different than those shown in Table A-1 because it includes all classified forestland even though the primary use is not timber production. Because adjustments to reflect the primary use of the lands are not included, the acres identified in this section of the report will be identical to last year's. The difference between gross and net acreage is the elimination of all lands that were not utilized for commercial forest production.

Table 1
Total Net Forested Acres by Grant and Land Office

	Land Office				
Trust	**CLO**	**NELO**	**NWLO**	**SWLO**	**Total**
ACB	509		11,818	7,944	20,271
ACI			3,354	2,069	5,423
CS	9,511	19	192,784	79,002	281,316
DDA	502		8,309	400	9,211
PB	2,371		38,575	26,366	67,312
SM	1,120		9,818	2,556	13,494
SNS	540		9,366	3,506	13,412
SRS	7,299		1,626	4,488	13,413
Univ			155	322	477
Total	21,852	19	275,805	126,654	424,329

A comparison of the Classified Forest Lands and all trust lands is given in Table 2. The land distribution by trust on classified forests differs considerable from the distribution of land on all trust lands. This is true for the state in total and for the individual land offices. For example, the Common School Trust accounts for about 90% of the total trust lands in the

[3] The methodology used in this section of the report is consistent with the methodology used in the 2000 and 2001 reports. For detailed methodology refer to the 2000 "Return on Asset" report.

state, but only accounts for 66% of the Classified Forest Trust land and less than 45% of the Classified Forest Land in the Central Land Office. Public Buildings constitute 3.6% of all trust land but accounts for nearly 16% of Classified Forest Trust Land. The result of these differences is that contributions to revenue from classified forestland are likely to differ from revenue contributions from all trust land.

Table 2
A Comparison of the Land Distribution Between Trusts on Classified Forest Lands and all Trust Lands

	CLO		NWLO		SWLO		Total	
Trust	**% of CLO CF***	**% of All Trust land**	**% of NWLO CF***	**% of All Trust land**	**% of SWLO CF***	**% of All Trust land**	**% of All CF***	**% of All Trust land**
ACB	2.3%	0.8%	4.3%	3.8%	6.3%	4.3%	4.8%	0.6%
ACI		3.3%	1.2%	1.0%	1.6%	1.3%	1.3%	1.2%
CS	43.5%	76.3%	69.9%	71.8%	62.4%	74.7%	66.3%	89.8%
DDA	2.3%	2.0%	3.0%	2.9%	0.3%	0.4%	2.2%	0.7%
PB	10.9%	8.6%	14.0%	13.1%	20.8%	12.9%	15.9%	3.6%
SM	5.1%	2.1%	3.6%	3.5%	2.0%	1.7%	3.2%	1.1%
SRS	2.5%	2.7%	3.4%	3.2%	2.8%	1.7%	3.2%	1.2%
SNS	33.4%	4.0%	0.6%	0.3%	3.5%	2.1%	3.2%	1.3%
Univ		0.3%	0.1%		0.3%	0.9%	0.1%	0.4%
* Classified Forest								

The asset value for classified forestland is given in Table 3. These estimates of asset value were derived using procedures identified in Title 15, Chapter 44, Part 1.

Table 3
Average Total Asset Value by Trust and Land Office
Net Classified Forest Acres Only
(2000 Dollars)

	Land Office			
Trust	**CLO**	**NWLO**	**SWLO**	**Total**
ACB	170,361	7,062,496	4,587,532	11,820,388
ACI	0	1,918,989	806,919	2,725,908
CS	3,739,607	124,812,785	43,094,762	171,647,154
DDA	370,253	5,112,437	183,738	5,666,428
PB	1,410,095	22,024,867	14,399,899	37,834,861
SM	669,397	5,928,743	1,390,381	7,988,521
SNS	303,176	5,703,635	1,924,912	7,931,723
SRS	2,651,561	1,116,943	2,783,115	6,551,620
Univ	0	84,564	152,326	236,890
Total	9,314,449	173,765,458	69,323,585	252,403,492

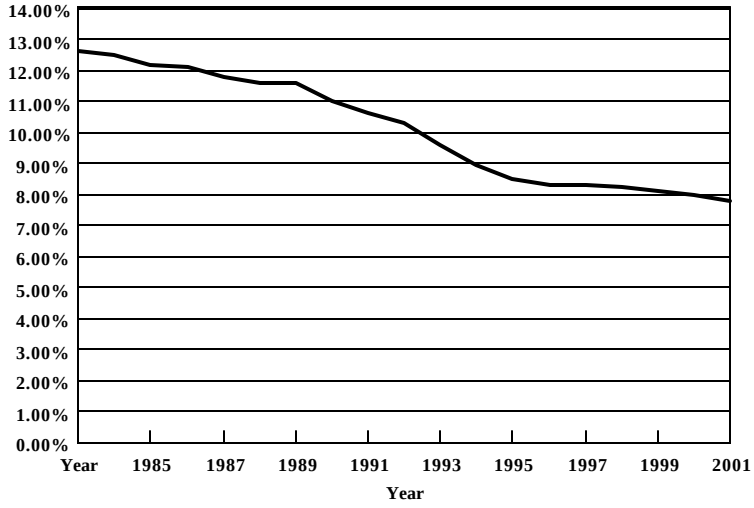
The relative distribution of assets value changed little from last year.
Asset values decreased by nearly $3.5 million or 1.4% between FY 2002 and FY 2003. The decrease was comparatively evenly distributed, except for the DDA and SRS trusts whose asset values increased slightly. Because it is the largest trust in absolute terms the common school trust lost the most dollar value.

The reason for the decline

in trust value is related primarily interaction of the continuing timber price decline and slowly declining interest rates.

Figure 1 shows the average interest rate charged by the Spokane Farm Credit District since 1984. This interest rate is the prime component of the capitalization rate used to compute the asset values shown in Table 3. Average tax rates are also used in computing the discount rate, but the tax rate adds less than 1% to the interest rates. However, as the interest rates continue to fall, the average tax rate assumes more importance in the total discount rate calculation. The interest rate decline has decreased in recent years, and the expectation is that this trend will continue or even reverse itself in the next few years if the economy stabilizes and strengthens. If this happens, then the effects of the declining interest rates in maintaining the established asset values for forest lands will be diminished.

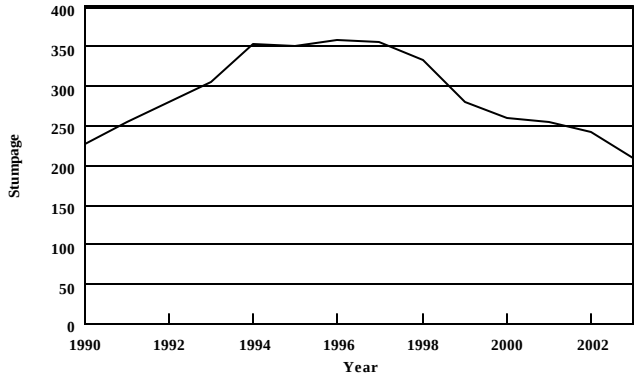
Figure 1
Farm Credit Bank Interest Rates



Source: Montana Department of Natural Resources and Conservation, Trust Land Management and the Spokane Farm Credit Bank District

Figure 2 shows the trend in stumpage fees. Stumpage rates continue to decline. This year's decrease was relatively large due to the low stumpage values received for some of the fire salvage sales. Current market conditions give no indication of strong price improvements in the near term; however, prices have increased recently and the housing market remains strong. The timber export issues with Canada are being resolved and the Japanese housing markets are improving both of which should help to alleviate the effects of the declining stumpage prices received for state trust land sales.

Figure 2
Classified Forest Stumpage
Plus Forest Improvement Fees



Source: Montana Department of Natural Resources and Conservation, Trust Lands Management Division

Appreciation is determined by differencing the asset value for trust lands in the current year from the asset value for

Classified Forestland 10 years ago. Because of the comparatively high price received during the early to mid-1990's and the price inflation adjustments, the asset value in the current years is nearly the same as it was ten years ago. This means that appreciation is declining despite declining interest rates. This decline is reflected in the total return on asset numbers and could in the future result in negative appreciation. This is almost certain if interest rates increase.

Table 4
Ten Year Average Annual Gross Revenue From Commodity Sales
(2000 $'s)

	Land Office			
Trust	**CLO**	**NWLO**	**SWLO**	**Total**
ACB	$618	$239,257	$294,638	$534,513
ACI	0	20,948	67,090	88,038
CS	271,269	2,653,808	975,732	3,900,810
DDA	1,406	166,693	6,235	174,334
PB	4,551	511,683	484,014	1,000,248
SM	1,394	168,882	54,597	224,873
SNS	24,314	62,365	202,781	289,460
SRS	16,135	11,759	109,063	136,957
Univ	0	5,194	8,194	13,389
Total	$319,688	$3,840,590	$2,202,345	$6,362,623

The ten-year average gross revenue from commodity sales is shown in Table 4. The average is based on ten years of revenue through 2003 adjusted to 2000 dollars using the GDP implicit price deflator published by the Bureau of Economic Analysis.

Average annual gross revenue increased by about $257,000 (4%) from last year's level. This is the result of losing the relatively low income from an earlier year and replacing it with higher income in the current year. The gross revenue will vary year-to-year depending on the relative size of the income earned in the current year compared to the inflation-adjusted income in the first year. This years results were somewhat surprising considering that stumpage rates have been declining for most of the period. Without increasing stumpage or the development of additional resources on classified forests, last year's decrease is likely to return.

Table 5
Ten-year Average Annual Net Revenue From Commodity sales
(2000 $'s)

	Land Office			
Trust	**CLO**	**NWLO**	**SWLO**	**Total**
ACB	$473	$115,572	$145,996	$262,041
ACI	0	10,499	32,861	43,361
CS	145,305	1,284,830	494,529	1,924,664
DDA	888	80,184	4,962	86,034
PB	3,054	247,373	246,235	496,662
SM	1,106	82,571	28,038	111,714
SNS	22,668	30,178	100,047	152,893
SRS	8,450	5,768	56,745	70,962
Univ	0	2,507	7,004	9,510
Total	$181,944	$1,859,480	$1,116,416	$3,157,841

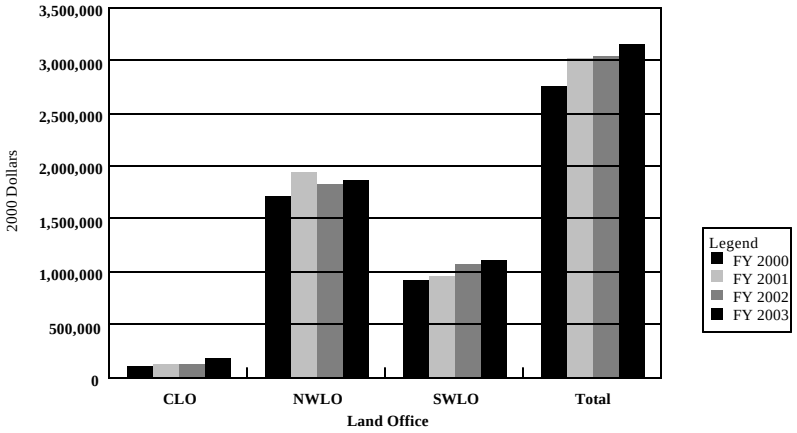
Net revenue reflects the difference between gross revenue and the State's expense of producing the various commodities that are available on

classified forestland. Net revenue has remained nearly constant, increasing by $125,858. In percentage terms, this is slightly less than four percent (4%).

Ten-year average net revenues are up less than gross revenue. This implies that the average cost of producing the commodities has increased. The increase in expense is very small.

Figure 3 gives a graphical comparison of ten-year average net revenue for the last four years. From Figure 3 it is easy to see that the total of all regions has increased this year, and that the increase is reflected in all of the land offices. The Central Land Office's net revenue increased by 37% by far the most of any region, the Northwestern Land Office's net revenue has increased by 2% and the Southwestern Land Office's net revenue has increased 4%. The overall increase was 4 % which shows that the Central Land Office's small acreage had little influence on the total net return.

Figure 3
Ten-Year Average Annual Net Revenue from Commodity Sales
FY 2000 to FY 2003



Source: Montana Department of Natural Resources and Conservation, Trust Lands Division

The total return on assets for FY 2003 is down compared to FY 2002. Because the ten-year average net revenue is almost the same, the reason for decline must be from lower land appreciation values. The reason for the lower appreciation values is the continuing decline in timber prices over the last ten years. These prices are shown in shown in Figure 2. As indicated in last year's report, the decrease in interest rates has not been large enough to offset the decrease in timber prices.

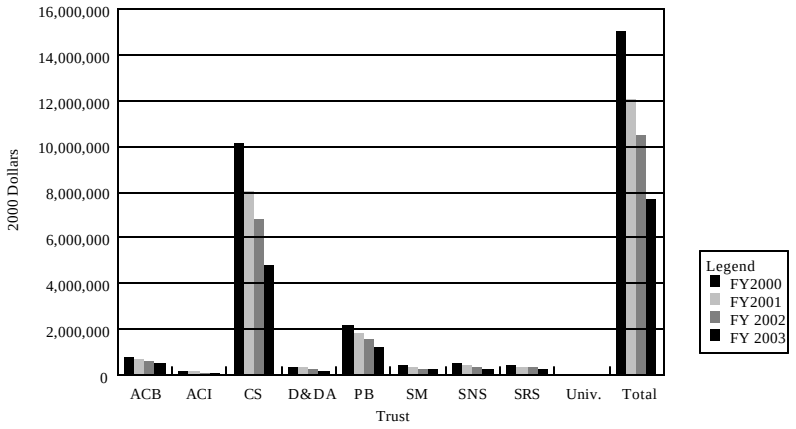
Table 6 shows the total return to assets for FY 2003. Most trusts showed a decrease in total assets compared to FY 2002; however, the Central Land Office had an increase in the total return on assets, whereas the Northwestern and Southwestern Land Offices both showed a decrease in the total return.

Table 6 Ten-year Average Annual Return on Total Assets By Trust and Land Office FY 2003				
	Land office			
Trust	**CLO**	**NWLO**	**SWLO**	**Total**
ACB	$8,112	$194,003	$298,316	$500,431
ACI	0	32,188	56,282	88,470
CS	326,315	2,634,170	1,876,983	4,837,467
DDA	22,693	136,271	15,367	174,331
PB	87,365	497,651	648,712	1,233,728
SM	42,016	148,251	71,528	261,794
SNS	41,970	93,278	160,114	295,362
SRS	132,079	17,582	157,080	306,741
Univ	0	3,486	11,383	14,870
Total	$660,550	$3,756,881	$3,295,764	$7,713,195

The total loss in return to assets from FY 2003 was $2,792,751, or a decrease of 26.58%. This compares to last year's decrease of nearly $1.6 million or 13.4%. In both cases the majority of the decrease is due to decreasing appreciations. Of the $2,792,751 loss this year, all of it was the result of lower appreciation value. Only the DDA had a higher return on assets this year compared to last year.

The rate of return on assets by land office and by trust for FY 2003 is shown in Table 7. The overall rate of return is down 1.0% from last year and nearly 2.7% from FY 2000. As indicated earlier, the gain from lower interest rates is likely to continue to decline and may, if current conditions hold, turn into losses if interest rates increase. Prices are expected to remain low relative to the prices experienced a decade ago. Figure 6 shows the return on the individual trusts. The decrease in the rate of return is reflected in all but one trust due to the consistent decrease in appreciation for all trusts.

Figure 5
Annual Return to Total Assets by Trust
FY 2000 to FY 2002



Montana Department of Natural Resources and Conservation, Trust Lands Division

Table 7 Ten Year Average Rate of Return On State Classified Forests FY 2003				
	Land Office			
Trust	**CLO**	**NWLO**	**SWLO**	**Total**
ACB	4.8%	2.7%	6.5%	4.2%
ACI	0.0%	1.7%	7.0%	3.2%
CS	8.7%	2.1%	4.4%	2.8%
DDA	6.1%	2.7%	8.4%	3.1%
PB	6.2%	2.3%	4.5%	3.3%
SM	6.3%	2.5%	5.1%	3.3%
SNS	13.8%	1.6%	8.3%	3.7%
SRS	5.0%	1.6%	5.6%	4.7%
Univ	0.0%	4.1%	7.5%	6.3%
Total	7.1%	2.2%	4.8%	3.1%

Regional changes are likely to be more volatile than the total, however this year only the Southwest Land Office showed any significant change declining from 6.5% to 4.8%. The most significant change in trust rates of return occurred on the DDA lands where the rate of return declined from 4.6% to 3.1%.

Summary

The estimated return on assets continues to decline, reflecting substantial price decreases over the twenty years included in the analysis. Falling interest rates have not been sufficient to keep appreciation from being smaller each year as the value of timber decreases. Commodity sales changes are small compared to last year, so that virtually all of the decline in return on assets can be attributed to the continuing fall in appreciation value.

Table 8 shows a comparison of acreage owned and net revenue earned by trust. The acreage and earnings are generally comparable; however, the distribution of earnings has changed somewhat since last year. The Common School trust is proportionately lower this year than in FY 2002. This has allowed trusts such as the MSU Trust and Public Building Trusts to obtain a larger share relative to the trust acreage. The University of Montana Trust and the School of Mines also remain above average.

Table 8 Proportion of Net Revenue Earned and Net Acreage by Trust		
	Net Acres	**Net Revenue**
Trust	**% of total**	**% of total**
ACB	4.78%	6.49%
ACI	1.28%	1.15%
CS	66.30%	62.72%
DDA	2.17%	2.26%
PB	15.86%	16.00%
SM	3.18%	3.39%
SNS	3.16%	3.83%
SRS	3.16%	3.98%
Univ	0.11%	0.19%
Total	100.00%	100.00%

As indicated last year, in the long run the return should be fairly proportional to the acreage, although this could vary year-to-year somewhat due to differences in resource endowments.

The asset values derived from this methodology do not represent a market value of Montana's Classified Forest Land; they are a capitalization of a limited number of resource values into a land valuation. However, in a market situation, other values could make the market value of the land either higher or lower than the estimates derived in this analysis. Other considerations not included are access, scenic values, and intense agricultural use,

to name a few. In addition, other areas may contain non-market values which are difficult to quantify and capitalize into the land value. Thus, this analysis does not necessarily represent the market value of the land. It does, however, represent a reasonable estimate of the value and return based on the current market uses.

Appendix

The appendix contains the analysis of each resource bureau's revenue generating activity on state trust lands. The analysis of each bureau's activity is independent of the other bureaus, but many of the methods used are similar. Improved information made available has improved the accuracy of many of the acreage numbers available. The changes resulting from improved numbers have been adjusted for in order to minimize their impact. When changes are large, tables and figures will be utilized to show the effect of the improved land information. Revision of land data is an ongoing process so that there will continue to be changes year-to-year, however, future changes should be smaller than those occurring in the current year.

The table below indicates the basic method used in analyzing the returns to the trust generated by each bureau.

Montana Department of Natural Resources and Conservation
Methods Used to Value Resources by Bureau
State FY 2003

Bureau	Method of Analysis	Comments
Agriculture and Grazing	Capitalization	Adjusted for regional values
Forest Management	Capitalization	Distributed on acreage and revenue
Minerals	Discounted Reserves Capitalization	Distributed on acreage and Revenue
Special Uses	Adjusted Appraisals Capitalization	Distributed on acreage.

The asset value is based on individual year information rather than multi-year averages. This results in more volatile outcomes, but the information reflects the most current return on asset information available. As shown in the table above, the approach to asset valuation has been somewhat pragmatic and was generally determined by the information available. Direct appraisal information was always used if it was available. Discounted values of a resource were used if a reasonable estimate of the future value of the resource was available. Capitalization was used as the last choice because of the circular nature of the method and the difficulty in identifying an appropriate capitalization rate.

Not all trusts in each land office earn revenue each year. The analysis of each of the individual trust revenue sources is analyzed independently of other trust revenue sources. This results in some of the trusts showing no return on assets from their trust lands in some Land Offices by a particular Bureau. An area may have earnings from other sources that are not part of their classification; e.g., Special Uses may have earnings on classified forestland. For this reason, the information in the main body of the report provides the most comprehensive information on trust returns.

A. CLASSIFIED TIMBER LANDS

One method used to determine the return on assets on Classified Forest Lands is prescribed in law (77-1-223 MCA & 77-1-224 MCA). This analysis was completed and is included as the last section of the main report A second method, which is developed in this section of the appendix, is consistent with the approach used in analyzing the return on assets for other trust land resources. To maintain consistency, information derived from the second approach is used in the overall analysis of the return on assets for all trust lands.

Table A-1 shows the net classified forest by land office and by grant. These numbers differ slightly from previous years in order to reflect both the change in primary use of the land from forest to other uses and the change that occurs from reclassification of other lands to forestland. Because trust land management is a dynamic process, other reclassifications are likely to occur which will make next years' net Classified Forest Lands differ from the ones in Table A-1.

Table A – 1
Montana Department of Natural Resources and Conservation
Classified Forest Acres by Land Office and Trust
FY 2003

	Land Office						
Trust	**NWLO**	**SWLO**	**CLO**	**NELO**	**SLO**	**ELO**	**TOTAL**
ACB	12,212	9,073	799	0	0	0	22,085
ACI	3,423	2,044	0	0	0	0	5,466
CS	209,357	95,603	13,507	642	0	0	319,109
DB	8,584	1,176	645	0	0	0	10,405
PB	40,591	29,176	2,643	0	0	0	72,410
SM	10,718	3,278	1,850	0	0	0	15,846
SNS	10,154	3,873	610	0	0	0	14,638
SRS	1,309	4,848	12,179	0	0	0	18,336
UM	364	1,708	0	0	0	0	2,072
TOTAL	296,713	150,778	32,234	642	0	0	480,368

The total change in net classified forest acreage is over 14%; however, most of this change results from the use of total rather than a net acreage figure that is used in the legally mandated report. This is not an increase in the acres earning revenue, but the addition of less productive timber acreage to the primary income-earning acreages. This change makes the definition of forest acres more consistent with the acreage definitions utilized for other bureaus. This change will have little impact on return measures but will impact asset values. These impacts have been adjusted for where possible.

Table A-2 shows the asset value by land office and trust on Classified Forest Lands. Capitalization of timber earnings is used to determine the asset value by land office and trust for timber. The capitalization rate used for FY 2003 is

7.77%, the same loan rate the Farm Credit Bank District of Spokane used to capitalize the value of forestlands under (77-1-223-225 MCA), the legislatively mandated return on asset report. In this case, the interest rate is for the current year rather than the average of the sum of the property tax rates and interest rates for a period of 5 years. This rate is a lending rate, not an earnings rate, and as such is inflated since it also includes a profit and risk margin for the banks. The actual earnings potential would reflect a lower rate. In addition to the capitalized forest earnings, other assets that are derived from earnings of other bureaus (Mining, Agriculture and Grazing, and Special Uses) are included as part of the asset value of classified forestland. Prorating on the basis of acreage is the method used to determine the amount of assets from other activities allocated to classified forestland. The estimates of asset value from other activities are based on different techniques that are discussed under each of the activities. Use of the current year estimates rather than a multi-year average will cause more volatile changes in the asset value year to year, but will provide for a more current estimate of the asset value. Current year market interest rates contain components of risk, anticipated inflation and expected real price changes.

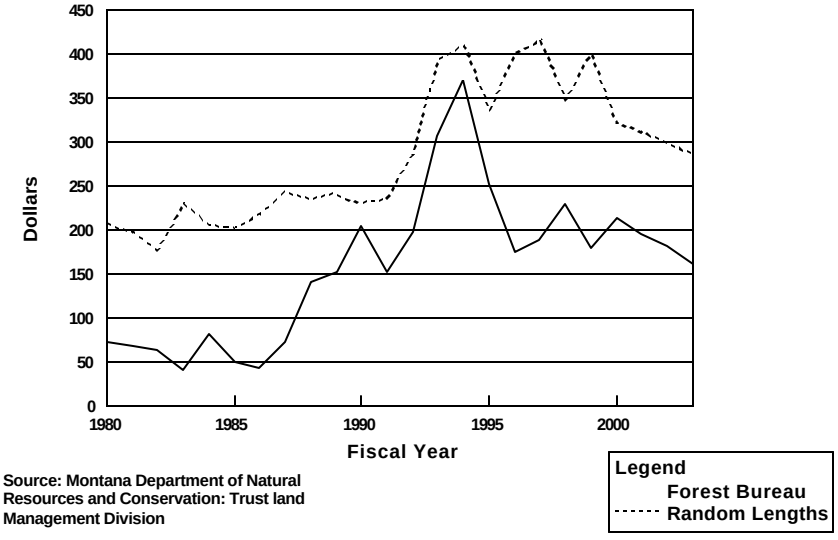
The fiscal year 2003 asset values have not increased as much as would be expected from the declining interest rates and the increase in acreage, however, declining timber prices reduced the revenue earned by the forestry sector and have held gains in asset value to a modest increase (the reduced revenue will be discussed further under the net return discussion).

Table A – 2
Montana Department of Natural Resources and Conservation
Forested Land Asset Value by Land Office and Trust
State Classified Forests FY 2003
(Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	120	0	0	8,991	0	2,742	11,852
ACI	0	0	0	2,470	0	714	3,184
CS	2,212	0	81	146,673	0	27,280	176,246
DB	116	0	0	6,321	0	138	6,575
PB	541	0	0	28,458	0	8,691	37,690
SM	257	0	0	7,469	0	883	8,608
SNS	123	0	0	6,696	0	1,210	8,029
SRS	1,581	0	0	1,197	0	1,542	4,320
UM	0	0	0	118	0	112	230
Total	4,951	0	81	208,392	0	43,312	256,736

Table A-3 shows the net return on assets on Classified Forest Lands for FY 2003. This includes all of the net revenue available for allocation to the trust from timber sales, net revenue from minerals, special uses revenue earned on Classified

Figure A - 1
Montana Deparment of Natural Resources and Conservation
Wood prices 1980 - 2003



Source: Montana Department of Natural Resources and Conservation: Trust land Management Division

Forest Lands, and appreciation. Net revenue is gross revenue less forest improvement revenue and operating costs on classified forests and net revenues from all revenue sources.

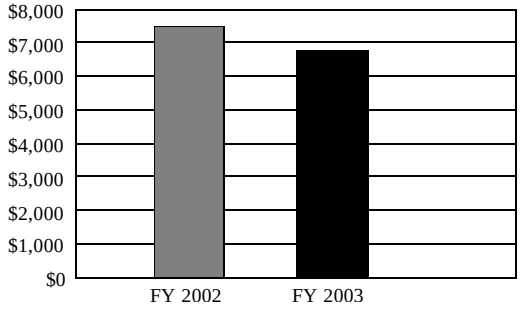
Return has decreased this year primarily due to the lower revenue received on forested lands. Figure A-1 shows the prices received on forest sales for the last several years. The average price received for wood declined from $183/mbf in FY2002 to $161/mbf in FY 2003. This was the result of several factors the two most important ones being the decline in prices generally as shown by the random lengths line in the chart and the second factor the increased number of salvage sales that have been offered in the last few years. In recent months regional prices have shown signs of leveling and, assuming no more large fire years that necessitate large amounts of fires salvage sales, prices to the agency should start improving. Several international improvements, such as an increase in housing construction market in Japan, should also help to improve the prices the agency receives for its logs.

Table A – 3
Montana Department of Natural Resources and Conservation
Net Return on Classified Forests by Land Office and Trust
State Classified Forests FY 2003
(Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	3	0	0	261	0	197	460
ACI	0	0	0	64	0	10	74
CS	487	0	4	2,929	0	855	4,275
DB	2	0	0	166	0	2	170
PB	11	0	0	723	0	261	995
SM	5	0	0	390	0	20	415
SNS	3	0	0	169	0	33	205
SRS	45	0	0	17	0	118	180
UM	0	0	0	2	0	2	4
Total	556	0	4	4,720	0	1,497	6,778

Earnings from other bureaus are included in Table A-3. To fully identify the earnings on Classified Forest Lands and the associated return on assets, net earnings from Special Uses and from Minerals on classified forests must also be included. These additional earnings are based on average earning per acre by trust and land office from the "other income" sources. These earnings were prorated to the different trusts based on the amount of land owned by the trust within a particular land office boundary. The "return" includes land appreciation. This results in some areas showing a return when no economic activity has occurred. Figure A-2 shows a comparison of the estimated return on assets from forested lands for FY 2002 and FY2003. FY 2003 is 9.4% lower than FY 2002. This is due primarily to the decline in forest revenue between the two years and it clearly shows the impact of declining market prices and the many recent salvage harvests.

Figure A - 2
Montana Department of Natural Resources and Conservation
Return on Assets from Forested Lands FY 2002 vs FY 2003
(Thousands of Dollars)



Source: Montana Department on Natural Resources and Conservation

Table A-4 shows the rate of return on assets on Classified Forest Lands. This rate includes earnings from all other classified forest uses in addition to the return from timber harvests. Appreciation is also included as part of the rate of return.

Table A – 3 Montana Department of Natural Resources and Conservation Net Rate of Return on Classified Forests by Land Office and Trust State Classified Forests FY 2003							
	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	2.3%	0.0%	0.0%	2.9%	0.0%	7.2%	3.9%
ACI	0.0%	0.0%	0.0%	2.6%	0.0%	1.4%	2.3%
CS	22.0%	0.0%	5.1%	2.0%	0.0%	3.1%	2.4%
DB	2.1%	0.0%	0.0%	2.6%	0.0%	1.6%	2.6%
PB	2.1%	0.0%	0.0%	2.5%	0.0%	3.0%	2.6%
SM	2.0%	0.0%	0.0%	5.2%	0.0%	2.3%	4.8%
SNS	2.1%	0.0%	0.0%	2.5%	0.0%	2.7%	2.5%
SRS	2.8%	0.0%	0.0%	1.4%	0.0%	7.7%	4.2%
UM	0.0%	0.0%	0.0%	1.4%	0.0%	1.4%	1.4%
Total	11.2%	0.0%	5.1%	2.3%	0.0%	3.5%	2.6%

Rates of return vary substantially between regions and trusts depending on earnings appreciation and the contribution of non-classified producers to earnings. Some areas with no timber activities show earnings from other sources, some from appreciation. These rates of return will vary substantially year to year, depending on the economic activity occurring within each trust and land office. The asset value will also vary year to year depending on the real interest rate and current year activity on the forests. The average rate of return this year was slightly under 2.6%. The rate of return on revenue only was 1.2%.

Not surprisingly the rate of return for FY 2003 on Classified Forest lands is down. Fiscal 2002 had a rate of return of 2.96 % compared to the FY 2003 rate of return of 2.6 %. This represents a decrease of slightly more than 12%.

B. Special Use Lands

Special Use lands, classified as "Other," had the highest proportionate changes in land acreages of all of the bureaus. Acreages nearly tripled from last year as a result of the improved data availability. Because of the large change, comparisons to adjusted measures will be utilized to provide a more accurate comparison between years.

Special Use programs included under this analysis are cabin site leasing, special leases and licenses, land use licenses and recreational licensing. All of the programs differ substantially in information and characteristics. The Rights-of-Way and Land Sales programs are not included in the analysis, since these activities involve an exchange of assets, money for land, or a program expense.

The money from land sales is deposited into the permanent fund, where it can earn money for the trust through other investments.

Despite revisions in the acreages, the land base for special uses is very small relative to the land base for other bureaus. A disproportionate share of the money from special uses comes from fees on lands classified as forested, grazing and agriculture. The rate of return on many of the Special Use activities is relatively high, however, because the revenue is dominated by cabin site leases and licenses that have a limited earnings potential (3.5% to 5% of the appraised value[4]), the overall rate of return is lower than would be otherwise expected.

Table B – 1 shows the estimated acreage specific to special uses. Total acreage for FY 2003 is 22,071 acres. This is over 2.5 times the size of last years estimate of 8,760 acres. Most of the increase represents a relatively few number of large special use leaseholders that were not included in last years numbers.

Table B – 1
Montana Department of Natural Resources and Conservation
Total Net Special Use acres by Land Office and Trust
FY 2003

	Land Office						
Grant	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	440	0	0	49	0	355	844
ACI	629	0	0	3	22	0	654
CS	11,605	202	1,466	1,707	2,110	298	17,389
DB	375	0	0	43	0	20	437
PB	1,910	0	0	106	0	25	2,042
SM	215	0	5	201	0	0	422
SNS	56	0	79	51	0	14	200
SRS	3	0	5	0	0	60	67
UM	17	0	0	0	0	0	17
TOTAL	15,249	202	1,556	2,160	2,132	773	22,071

Table B-1 shows the estimated acreage classified as other specific to Special Uses. Special Use programs cover a significantly larger amount of the total trust surface acreage, than the lands identified in Table B-1. Programs such as the Recreational Use licensing program cover virtually the entire state but occur almost entirely on lands whose primary use is under the management of one of the other trust land bureaus. This year's estimate is derived almost entirely from information available in the new Trust Land Management System. This acreage number is higher than in the past because many of the parcels that were included as part of Classified Forest Lands or grazing are now classified as "Other." The numbers here are estimates that should continue to be improved upon with the

[4] The Land Board raised the rate to 5% in 1999. This rate has been being "phased in" annually on all lease renewals since 1999. This increase is reflected in the special use returns.

ongoing implementation of the new Trust Land Management system. As with the other bureaus the acreage numbers will change yearly as new programs to enable the Trust Land Division to earn more money for the trusts are implemented.

The determination of asset value in Special Uses is a combination of several techniques. In some instances, direct appraisal information is available. Most cabin sites have direct appraisal information available, some special use sites also have appraisal information available. The appraisals are, for the most part, "out of date." Cabin site appraisals are currently in the process of being updated, but were not available for this analysis. For purposes of this analysis, the most recent appraisal was used and updated to an estimated FY 2003 value using the implicit price deflators published by the Bureau of Economic Analysis. This approach adjusts for general price increases but does not reflect price changes due to market changes specific to an industry. The reappraisal process recognizes industry-specific changes and results in better estimates of the market value of the land. The reappraisals should be available for next year's report. Special Use lands that did not have an appraisal were valued using capitalization. Over 80% of the asset value comes from adjusted appraisal data.

Table B – 2
Montana Department of Natural Resources and Conservation
Total Net Special Use Asset Value by Land Office and Trust
FY 2003 (Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	289	2,099	2,598	13	0	78	5,077
ACI	95	0	3,717	9	152	0	3,973
CS	10,332	3,473	71,720	8,460	12,894	1,020	107,899
DB	270	116	2,216	13	0	26	2,641
PB	657	150	11,286	37	0	27	12,157
SM	1,203	0	1,328	172	0	0	2,703
SNS	323	85	348	470	0	6	1,233
SRS	18	355	25	27	0	42	467
UM	9	0	98	0	0	0	106
Total	13,197	6,277	93,335	9,202	13,046	1,200	136,257

Table B – 2 shows the special use estimated asset value for FY 2003. The comparatively large per acre asset value results from the higher value asset that characterize most of the land classified as special uses. Cabin sites and land in proximity to urban areas is generally of higher value than land whose primary purpose is timber production, or land used for agricultural purposes. The asset estimate includes the estimated value of the minerals on special use lands as well as an estimate of the agricultural and timber values. Both of the latter two values are small. Primarily because of the increase in acreage, this year's asset value is

much larger than last years although the impact of cabin site reappraisals is also raising the average value per acreage.

The annual return to total assets is calculated by distributing the Special Uses revenue earned on non-Special Use lands to the program where they are earned. Revenues earned by other programs (Minerals etc.) on Special Use lands are then added back to the Special Uses return accrual. Finally, any estimated appreciation that occurred on Special Use lands was added to the revenue accrual. This is the annual return to total assets shown in Table B-3. This table represents the estimated earnings (appreciation and net revenue) from all sources on special use lands for FY 2002.

The return is generally largest on those trusts and land offices that have the most acreage. Common Schools have nearly 90% of the Trust Land in the state and have earned the largest share of revenue. The second largest trust, Public Buildings, received less than 10% of the revenue received by Common Schools. The total return of $4,466,000 is over three times the size of the return reported last year. Most of the difference is attributable to the chance in acreage between the two years.

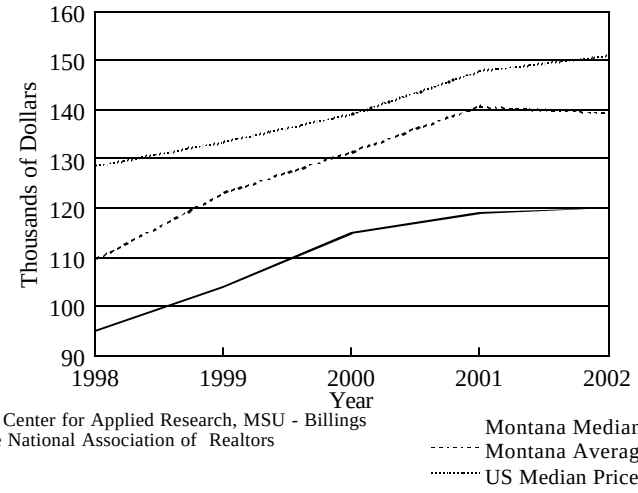
Table B – 3
Montana Department of Natural Resources and Conservation
Net Return to Assets by Land Office and Trust
Special Use Lands State FY 2003 (Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	63	0	0	13	5	77	158
ACI	80	0	0	7	4	177	269
CS	1,592	208	558	465	435	101	3,359
DB	55	0	0	13	0	4	73
PB	248	0	0	35	0	26	308
SM	29	0	6	162	0	0	198
SNS	17	0	13	14	0	6	51
SRS	3	0	2	0	0	41	45
UM	6	0	0	0	0	0	6
Total	2,092	208	580	709	444	432	4,466

In addition to the increase in estimated return to assets from the increase in acreage there is also an increase due to the increase in property values in general.

Figure B - 1 shows the average prices for housing in the US and Montana for the last 5 years. The median (middle) price for Montana housing is shown for the same period. The average rate of increase in prices between 1998 and 2002 is 5% per year. While average prices have leveled in 2002 the median price continues to increase indicating that the amount of lower price housing is decreasing. No similar figures for commercial real estate are available, but there is also an increase in commercial property values. The increasing property values are reflected in the return to assets in the appreciated value of the special use assets. This appreciation is second most important contributor to the increased return to assets shown in Table B – 3.

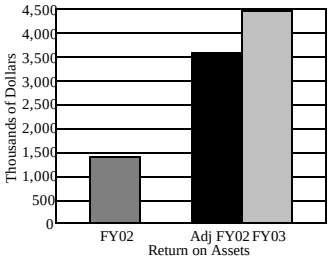
Figure B - 1
Montana Deparment of Natural Resources and Conservation
Housing Costs



Source: Center for Applied Research, MSU - Billings and The National Association of Realtors

Because of the large change in the acreage it is difficult to directly compare the FY 2002 rate of return to the FY 2003 rate of return. Figure B-2 shows the actual return on assets for FY 2002 and an adjusted return for FY 2002 based on the number of acres used to develop the return on assets for FY 2003. The return on assets for FY 2003 is also shown for comparative purposes.

Figure B - 2
Montana Department of Natural Resources and Cons
Rates of Return Adjusted for Increased Acreage



Source: Montana Department of Natural Resources and Conservation

Table B-4 presents the rate of return on the assets by land office and trust for FY 2003. The rates to do not vary substantially because some of the revenues were prorated based on acreage.

Table B – 4 Montana Department of Natural Resources and Conservation Net Return to Assets by Land Office and Trust Special Use Lands State FY 2003 (Thousands of Dollars)							
	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	21.8%	0.0%	0.0%	97.6%	0.0%	98.8%	3.1%
ACI	84.2%	0.0%	0.0%	81.4%	2.9%	0.0%	6.8%
CS	15.4%	6.0%	0.8%	5.5%	3.4%	9.9%	3.1%
DB	20.4%	0.0%	0.0%	101.5%	0.0%	16.5%	2.8%
PB	37.7%	0.0%	0.0%	92.6%	0.0%	95.2%	2.5%
SM	2.4%	0.0%	0.5%	94.2%	0.0%	0.0%	7.3%
SNS	5.2%	0.0%	3.8%	3.1%	0.0%	100.8%	4.1%
SRS	14.8%	0.0%	6.7%	0.0%	0.0%	95.7%	9.6%
UM	65.6%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%
Total	15.9%	3.3%	0.6%	7.7%	3.4%	36.0%	3.3%

The average rate of return was 3.3% in FY 2003. This is a small increase from the 3.2% return in FY2003. The primary reason for the increase in the rate of return is because of the increase in property values.

The return varied by region and trust. The overall average is usually close to the return on common school lands because common school lands dominate other trusts in terms of size. In some cases, the return is large for some land office/ trust combinations compared to the overall rate of return. This occurs because the proportion of the total value is quite small relative to the total so that the impact on the total return is small. The large return often results because there is another resource such as minerals or forests that contribute to the special use return resulting in a comparatively large rate of return for an individual trust within a land office.

C. AGRICULTURE AND GRAZING LANDS

The net agricultural acreage was determined from reports generated by the new Trust Land Management System from data provided by the states' central data system. This allowed an independent estimate of the acres in agricultural and grazing lands and made substantial changes in the distribution of lands between the two categories. The result has been a much higher proportion of grazing lands relative to agricultural lands. This difference has in turn made substantial differences in the estimates of agricultural asset values and the total agricultural return. This year it is possible to have separate table for "farmed land" and "grazing land." Agricultural land comprises the largest share of state trust surface

lands, accounting for over 91% of all surface trust lands. Tables C – 1 and C – 2 show the total "farmed" and total grazing acres.

Table C – 1
Montana Department of Natural Resources and Conservation
Total Net Farming Acres by Land Office and Trust
FY 2003

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	79	0	0	0	0	7	79
ACI	312	0	1,424	0	0	0	1,736
CS	86,409	59,546	384,874	822	19,104	1,076	550,756
DB	449	0	833	0	0	0	1,282
PB	2,795	0	981	0	0	0	3,776
SM	4,699	228	1,450	0	0	0	6,377
SNS	913	0	1,833	0	0	0	2,746
SRS	492	0	493	0	0	0	985
UM	466	725	729	0	0	0	1,921
TOTAL	96,615	60,499	392,617	822	19,104	1,083	569,657

Table C – 2
Montana Department of Natural Resources and Conservation
Total Net Grazing Acres by Land Office and Trust
FY 2003

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	8,179	0	0	0	0	229	8,179
ACI	36,610	480	13,502	0	3,556	1,451	54,148
CS	779,750	902,604	1,611,703	13,565	360,247	77,277	3,667,868
DB	21,309	0	3,027	0	0	0	24,337
PB	92,447	1,524	13,320	0	0	1,457	107,292
SM	19,346	0	17,129	320	0	0	36,795
SNS	29,411	723	15,696	0	0	40	45,831
SRS	34,040	617	10,977	0	3,249	0	48,883
UM	3,197	1,969	8,691	0	480	209	14,338
TOTAL	1,024,291	907,917	1,694,046	13,885	367,531	80,663	4,007,670

The distribution of agricultural acres is substantially different than was estimated in last years report. Farmed land comprises a substantially lower proportion of all agricultural lands than was previously estimated. The effect of this is to

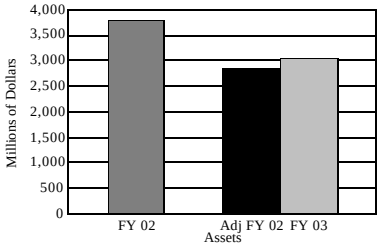
Table C – 3 Montana Department of Natural Resources and Conservation Total Net Agriculture and Grazing Assets by Land Office and Trust FY 2003 (Thousands of Dollars)							
	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	3,924	0	0	68	0	110	4,102
ACI	16,634	254	9,637	150	1,661	612	28,948
CS	503,783	595,071	1,530,109	6,253	201,654	34,530	2,871,400
DB	10,158	0	3,058	82	0	0	13,298
PB	45,405	758	7,752	302	0	614	54,832
SM	17,321	440	11,442	135	0	9	29,347
SNS	14,780	382	10,909	181	0	17	26,268
SRS	15,836	275	6,042	148	1,506	0	23,808
UM	2,335	2,487	6,025	31	242	88	11,208
Total	630,175	599,668	1,584,974	7,351	205,064	35,981	3,063,212

substantially lower the asset value and return values when compared to last year. Similar to the Special Use section of the report this section will also show the effects of the redistribution.

The majority of the assets and the return on assets for Mineral lands are included as part of the assets and return on the Agricultural and Grazing lands.

Agricultural and Grazing values on state trust lands are determined separately by identifying the average Agriculture and Grazing value using estimates from the Department of Revenue, then adjusting these values to trust land use levels (e.g., lower grazing rates on trust lands compared to private lands). Finally, the estimates are regionalized based on land values identified in the Census of Manufacturing, published by the U. S. Census Bureau. The separate Agriculture and Grazing rates were then combined based on the proportion of agriculture and grazing acres in each county. Finally, assets and returns are added from minerals and other sources. Asset value on Agriculture and Grazing lands constitutes the largest share of total asset value.

Figure C - 1
Montana Deparment on Natural Resources and Conservation
Asset values adjusted for acreage changes



Source: Montana Department of Natural Resources and Conservation

The total asset value on agricultural lands was $3,063,212,000 in FY 2003 compared to the estimated value in FY 2002 of $3,789,840,000. Nearly all of the decrease is the result of the change in the distribution between farmed and grazed acres although some of it is due to the smaller total acres. Figure C – 1 shows a comparison of the two years using the original estimate for FY

2002 and an adjusted estimate that reflects the changes in acres and acreage distribution between farming and grazing in the two years. The adjusted FY 2002 asset value is $2,853,297,000. Ninety-five percent of the change is the result of the redistribution of lands between farming and grazing the remaining is the result of the decreased overall acreage. Base on the adjusted asset values total, asset value increased by about 6% between fiscal '02 and fiscal '03.

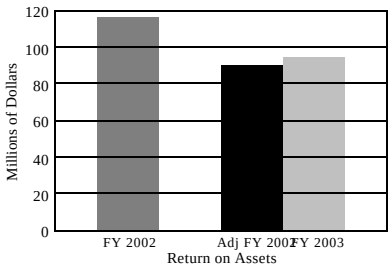
Table C – 4 shows the total return to assets on agricultural lands. This number will also change substantially since the redistribution of lands between farming and grazing purposes will substantially impact the amount of appreciation on all agriculture lands.

Table C – 4
Montana Department of Natural Resources and Conservation
Agriculture and Grazing Return on Assets by Land Office and Trust
State FY 2003(Thousands of Dollars)

	Land Office						
Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	81	0	0	33	0	2	116
ACI	513	5	188	65	42	17	829
CS	26,808	11,057	31,485	2,530	8,066	9,693	89,638
DB	245	0	64	34	0	0	343
PB	1,038	14	167	145	0	22	1,387
SM	534	10	223	61	0	1	830
SNS	415	7	226	71	0	5	723
SRS	391	6	125	67	37	1	626
UM	156	49	113	13	6	21	359
Total	30,180	11,148	32,590	3,019	8,151	9,763	94,851

The return on assets for FY 2003 was 4.7% higher compared to the adjusted FY 2002 return on assets. Figure C – 2 shows the return on assets for FY 2003 compared to the original estimate for FY 2002 and the adjusted estimate for FY 2002. Similar to the "assets" adjustment, most of the difference in the adjusted FY 2002 amount is the result of reallocating the acres from farming to grazing.

Figure C - 2
Montana Department of Natural Resources and Conservation
Return on Assets Adjusted for Acreage Changes



Source: Montana Department of Natural Resources and Conservation

Table C – 5 shows the rate of return on assets. The average rate of return in FY 2002 was 3.08%. The average rate of return for FY 2003 was virtually identical at 3.1%. The slightly higher increase in FY 2003 was due primarily to the increase in agriculture and grazing receipts.

Similar to last year, some rates of return are very high as a result of small acres with comparatively large appreciation.

Table C – 5
Montana Department of Natural Resources and Conservation
Agriculture and Grazing Rate of Return on Assets by Land Office and Trust
State FY 2003(Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	2.1%	0.0%	0.0%	48.8%	0.0%	2.2%	2.8%
ACI	3.1%	1.8%	1.9%	43.2%	2.5%	2.8%	2.9%
CS	5.3%	1.9%	2.1%	40.5%	4.0%	28.1%	3.1%
DB	2.4%	0.0%	2.1%	41.9%	0.0%	0.0%	2.6%
PB	2.3%	1.9%	2.2%	47.9%	0.0%	3.6%	2.5%
SM	3.1%	2.2%	2.0%	45.2%	0.0%	14.3%	2.8%
SNS	2.8%	1.8%	2.1%	39.0%	0.0%	31.1%	2.8%
SRS	2.5%	2.1%	2.1%	45.3%	2.5%	23.0%	2.6%
UM	6.7%	2.0%	1.9%	43.4%	2.5%	23.9%	3.2%
Total	4.8%	1.9%	2.1%	41.1%	4.0%	27.1%	3.1%

D. MINERAL LANDS

The trusts own about 6,300,000 acres in mineral rights. These rights are divided in coal, oil and gas, and other minerals. From a revenue-generating standpoint, coal, oil and gas generated about 98% of the mineral resource revenue in FY 2003, and the remaining 2% came from all other sources, mostly sand and gravel. Because the extraction of different minerals is generally not mutually exclusive, the value of the minerals and the asset values of each mineral is additive. Each mineral's asset value is estimated separately and then added to achieve a total value. The subsurface values can be added to the surface values to obtain a total estimate of values for the trust. This section provides the distribution of acreages by trust and land office and utilizes this information in conjunction with earnings to develop an asset value and rate of return on mineral properties.

Tables D-1a through D-1c show the acreage associated with each of the mineral resources. The largest number of acres is associated with oil and gas, followed by coal and then other minerals.

Table D – 1a
Montana Department of Natural Resources and Conservation
Total Coal Subsurface Acres by Land Office and Trust
State FY 2003

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	22,818	0	40	12,732	0	11,487	47,077
ACI	41,777	480	21,870	4,000	5,178	3,655	76,960
CS	1,233,306	935,840	2,371,894	262,041	423,839	211,945	5,438,864
DB	25,367	0	4,309	9,659	0	1,835	41,171
PB	136,028	1,080	18,275	40,574	0	32,312	228,270
SM	42,664	228	26,492	12,176	0	4,707	86,267
SNS	49,461	28	19,567	10,166	0	4,516	83,737
SRS	50,729	141	12,875	1,469	3,850	9,061	78,125
UM	9,681	3,165	16,712	524	1,120	2,553	33,754
Total	1,611,831	940,962	2,492,035	353,341	433,987	282,072	6,114,227

Table D – 1b
Montana Department of Natural Resources and Conservation
Total Oil and Gas Subsurface Acres by Land Office and Trust
State FY 2003

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	22,373	0	0	12,732	0	11,487	46,592
ACI	41,777	480	21,870	4,000	5,178	3,655	76,960
CS	1,208,550	1,008,912	2,480,307	262,145	434,457	206,674	5,601,046
DB	25,367	0	4,309	9,659	0	1,835	41,171
PB	92,785	1,080	5,661	40,974	0	32,312	172,812
SM	42,664	228	26,492	12,176	0	4,707	86,267
SNS	49,461	723	15,756	10,166	0	4,516	80,621
SRS	50,457	141	8,510	1,469	3,850	9,061	73,488
UM	9,681	3,165	16,712	524	1,120	2,553	33,754
Total	1,543,115	1,014,729	2,579,617	353,845	444,605	276,801	6,212,712

Table D – 1c Montana Department of Natural Resources and Conservation Total Other Minerals* Subsurface Acres by Land Office and Trust State FY 2003							
	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**TOTAL**
ACB	20,578	0	40	12,660	0	9,740	43,017
ACI	38,262	480	16,310	3,880	5,018	3,495	67,445
CS	1,096,079	999,202	2,274,896	251,911	409,723	181,399	5,213,210
DB	24,132	0	3,680	8,667	0	1,475	37,955
PB	117,992	1,617	19,013	40,377	0	30,510	209,509
SM	34,331	228	19,105	11,240	0	3,867	68,771
SNS	42,237	723	21,401	10,125	0	4,176	78,662
SRS	48,527	141	12,755	1,469	3,249	5,942	72,083
UM	5,026	2,694	10,061	364	480	1,917	20,541
Total	1,427,164	1,005,085	2,377,261	340,692	418,470	242,520	5,811,192
* Includes all minerals except coal, oil, and gas							

Coal, oil and gas asset values are estimated are calculated by estimating known reserves and the mineral price. The asset value is estimated by multiplying the current price times the estimated production for the life of the field or deposit, estimating a net revenue based on historic industry costs, and discounting this net revenue stream back to its present value, using the known reserves and recent production levels to determine the duration of production. In estimating reserves on coal, and in particular on oil and gas, the reserves will vary with the price; as the price increases, additional oil, gas, and coal become economic to produce, and the size of the reserve estimate increases. Conversely, if prices fall, less oil, gas or coal becomes economic to produce, and the reserve estimate falls. For the purpose of this analysis, it was assumed: 1. The current price will hold throughout the entire production of the field; 2. Only known reserves, reserves based upon current producing fields are used in the estimate; and 3. Production will continue at its current rate until the estimated reserves are depleted.

The federal government publishes known Mineral reserve estimates for each State of the United States. This reserve estimate was used as the basis of estimating the asset value for minerals in the State of Montana. The analysis assumes that, on average, the occurrence, type and volume of reserves is the same on State-owned Trust Lands as the rest of the state. The method used to estimate the asset value for each different mineral category is discussed below. A summary of the individual commodity asset values is shown in table D-2.

New acreage estimates have not changed the total acres to the extent that it did for agriculture and special use did. While the acreage changes will have a small effect other factors such as price changes are much more important factor in

changes to asset values and rates of return. Table D – 2 shows the Asset value for all minerals.

Table D – 2
Montana Department of Natural Resources and Conservation
Total Mineral Asset Value by Land Office and Trust
State FY 2003 (Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	347	0	0	5	0	4	356
ACI	647	55	1,358	2	169	1	2,232
CS	18,721	108,310	154,352	108	15,609	78	297,177
D&DA	393	0	269	4	0	1	666
PB	1,452	116	366	17	0	13	1,964
SM	659	26	1,646	5	0	2	2,338
SNS	765	46	987	4	0	2	1,803
SRS	783	16	536	1	140	3	1,478
Univ	148	340	1,043	0	40	1	1,572
Total	23,915	108,909	160,556	146	15,957	104	309,587

For oil and gas, asset estimates are made using the estimated profit from oil production to determine net industry rate profit. The profit level is obtained from data published by the Energy Information Administration and the U. S. Geological Survey. The asset value of the field is determined by first multiplying the rate of profit by the Montana price per barrel and multiplying this amount by the current production level extended until the field is depleted. This revenue stream is then discounted back at 4% to its present value. This number is the estimated asset value. A similar approach is used to determine the asset value of gas. The value for oil and gas is relatively large because of the relatively large profit margins.

A similar method is used for coal but, because of the lower profit margins for coal, the annual value of the income stream is much smaller[5]. However, the large size of the reserve extends the production period and increases the asset value. The Energy Information Administration data indicates that Montana is nearly the only state in the United States showing an increase in the price of coal in recent years. In addition, all of the national forecasts are predicting a decline in the price of coal into the foreseeable future. Environmental restrictions make it more difficult to utilize coal in the production of energy than other energy minerals. Another limit on Montana's coal reserve estimates is that Montana has large quantities of relatively low-grade coal, which increases costs in the production of

[5] The smaller income stream to producers has little short-term impact on the revenue received by the state for its coal royalties. The lower income level has a significant impact on the asset value of the reserves.

energy. For these reasons, the time period used to estimate the asset value of coal reserves was limited to thirty years.

Assets for other minerals (mostly sand and gravel) were estimated by capitalizing the current level of production using a 7.1% average corporate bond Yield rate.

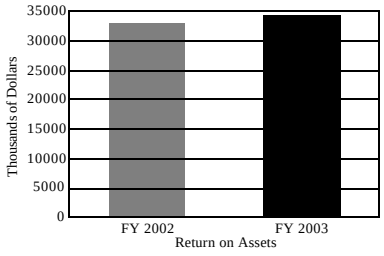
Table D – 3
Montana Department of Natural Resources and Conservation
Annual Return to Total Assets by Land Office and Trust
Mineral Lands State FY 2003 (Thousands of Dollars)

	Land Office						
Trust	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	35	0	0	0	0	0	35
ACI	65	3	160	0	10	0	239
CS	2,516	9,497	16,613	3	4,621	3	33,253
DB	37	0	24	0	0	0	62
PB	154	9	48	0	1	0	214
SM	61	1	160	0	0	0	223
SNS	74	5	102	0	0	0	182
SRS	92	1	49	0	7	0	149
UM	14	19	109	0	2	0	144
TOTAL	3,050	9,535	17,267	3	4,640	4	34,499

The return on assets for FY 2003 is show in Table D – 3. The return from mineral lands is up slightly from FY 2002. The FY 2002 return was $33,080,000 compared to $34,499 in FY 2003. Part of the increase is due to changes in acreage but the majority of the change in the result of higher net revenue from minerals which increased from $8,745,000 in FY 2002 to $11,311,000 in FY 2003.

Table D – 4 shows the rate of return on total assets. The rate is down slightly from FY 2002.

Figure D - 1
Montana Department of Natural Resources and Conservation
Return on Assets - Minerals



Source: Montana Department of Natural Resources and Conservation

Table D – 3 Montana Department of Natural Resources and Conservation Annual Return to Total Assets by Land Office and Trust Mineral Lands State FY 2003 (Thousands of Dollars)							
	Land Office						
Grant	**CLO**	**ELO**	**NELO**	**NWLO**	**SLO**	**SWLO**	**Total**
ACB	10.0%	0.0%	2.3%	2.3%	0.0%	4.1%	9.8%
ACI	10.1%	6.2%	11.8%	2.3%	5.7%	2.3%	10.7%
CS	13.4%	8.8%	10.8%	2.4%	29.6%	3.6%	11.2%
DB	9.4%	0.0%	9.1%	2.3%	0.0%	4.8%	9.2%
PB	10.6%	7.7%	13.2%	2.7%	0.0%	2.3%	10.9%
SM	9.3%	4.9%	9.7%	2.7%	0.0%	2.3%	9.6%
SNS	9.7%	10.9%	10.4%	2.3%	0.0%	2.3%	10.1%
SRS	11.8%	4.9%	9.1%	2.3%	4.7%	3.8%	10.1%
UM	9.7%	5.6%	10.5%	2.3%	4.0%	2.3%	9.2%
TOTAL	12.8%	8.8%	10.8%	2.4%	29.1%	3.4%	11.1%

The reason for the decrease in the rate of return is the increase in the assets value of mineral land. The primary reason for the increase in asset value is the increase in Oil and Gas asset value which is reflecting an increase in prices from last year. Minerals still have the largest overall rate of return.

Table E–1
Montana Department of Natural Resources and Conservation
Total Acres by Bureau and Land Office and Trust

Land Office		ACB	ACI	CS	DDA	PB	SM	SNS	SRS	Univ.	Total
NWLO	Ag& Grazing	-	-	14,387	-	-	320	-	-	-	14,707
	Forest	12,212	3,423	209,357	8,584	40,591	10,718	10,154	1,309	364	296,713
	Minerals	12,732	4,000	262,145	9,659	40,974	12,176	10,166	1,469	524	353,845
	Special uses	49	3	1,707	43	106	201	51	-	-	2,160
SWLO	Ag& Grazing	236	1,451	78,353	-	1,457	-	40	-	209	81,746
	Forest	9,073	2,044	95,603	1,176	29,176	3,278	3,873	4,848	1,708	150,778
	Minerals	11,487	3,655	206,674	1,835	32,312	4,707	4,516	9,061	2,553	276,801
	Special uses	355	-	298	20	25	-	14	60	-	773
CLO	Ag& Grazing	8,258	36,922	866,159	21,758	95,242	24,045	30,324	34,532	3,663	1,120,906
	Forest	799	-	13,507	645	2,643	1,850	610	12,179	-	32, 234
	Minerals	22,373	41,777	1,208,400	25,367	92,785	42,664	49,461	50,457	9,681	1,543,115
	Special uses	440	629	11,605	375	1,910	215	56	3	17	15,249
NELO	Ag& Grazing	-	14,926	1,996,077	3,860	14,301	18,579	17,529	11,470	9,420	2,086,663
	Forest	-	-	642	-	-	-	-	-	-	642
	Minerals	-	21,870	2,480,307	4,309	5,661	26,492	15,756	8,510	16,712	2,579,617
	Special uses	-	-	1,466	-	-	5	79	5	0	1,556
SLO	Ag& Grazing	-	3,556	379,351	-	-	-	-	3,249	480	386,635
	Forest	-	-	-	-	-	-	-	-	-	-
	Minerals	-	5,178	434,457	-	-	-	-	3,850	1,120	444,605
	Special uses	-	22	2,110	-	-	-	-	-	-	2,132
ELO	Ag& Grazing	-	480	962,150	-	1,524	228	723	617	2,694	968,416
	Forest	-	-	-	-	-	-	-	-	-	-
	Minerals	-	480	1,008,912	-	1,080	228	723	141	3,165	1,014,729
	Special uses	-	-	202	-	-	-	-	-	-	202
Total	Ag& Grazing	8,495	57,335	4,296,977	25,619	112,525	43,172	48,347	49,868	16,468	4,659,074
	Forest	22,085	5,466	319,109	10,405	72,410	15,846	14,638	18,336	2,072	480,368
	Minerals	46,592	76,960	5,601,046	41,171	172,812	86,267	80,621	73,488	33,754	6,212,712
	Special uses	844	654	17,389	437	2,042	422	200	67	17	22,071